



Section 101  
#3

Q60198  
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Jae-moon JO, et al.

Appln. No.: 09/654,939

Group Art Unit: 2621

Filed: August 31, 2000

Examiner: Not Yet Assigned

For: ADAPTIVE VARIABLE-LENGTH CODING AND DECODING METHODS FOR IMAGE DATA

SUBMISSION OF MISSING PARTS OF REISSUE APPLICATION

ATTN: BOX MISSING PARTS  
Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In response to the "Notice to File Missing Parts of Reissue Application - Filing Date Granted", for the above application, Applicants respectfully submit herewith a copy of the Reissue Declaration under 37 C.F.R. § 1.175, for the above identified application properly executed by the inventors. Also enclosed please find an Assent of Assignee to Reissue, Offer to Surrender Letters Patent under 37 C.F.R. § 1.178 and Certificate under 37 C.F.R. § 3.73(b), with a copy of the executed Assignment. The enclosed copies were originally filed in the Reissue Application No. 09/638,796.

A check for the statutory fee of \$130.00 is attached. Please also charge any underpayment or credit any overpayment to Deposit Account No. 19-4880. A duplicate copy of this paper is attached.

Respectfully submitted,

Mark E. Wadzyk  
Registration No. 45,187

SUGHRUE, MION, ZINN,  
MACPEAK & SEAS, PLLC  
2100 Pennsylvania Avenue, N.W.  
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Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

Date: December 21, 2000



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Date: December 21, 2000



Q60197  
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of

**Jae-moon JO and Je-Chang JEONG**

Reissue Application of U.S. Patent  
No. 5,793,897 issued on August 11, 1998

Filed: August 11, 2000

U.S. Appln. No. 09/638,796

For: **APAPTIVE VARIABLE-LENGTH CODING AND DECODING METHODS  
FOR IMAGE DATA**

**REISSUE DECLARATION UNDER 37 C.F.R. § 1.175**

We, **Jae-moon JO**, of Kyungki-do, Republic of Korea and **Je-Chang JEONG**, of Seoul, Republic of Korea, do hereby declare and state as follows:

Our residence, post office address and citizenship are as stated below next to our names.

We believe that we are the original and first and joint inventors of the invention **APAPTIVE VARIABLE-LENGTH CODING AND DECODING METHODS FOR IMAGE DATA** which is described and claimed in the above-identified U.S. Patent No. 5,793,897, issued August 11, 1998, and assigned to Samsung Electronics Co., Ltd., the specification of which is submitted with this application for reissue; and we affirm that we have reviewed and understand the contents of the specification, including the claims, as amended in this application for reissue.

In compliance with 37 C.F.R. § 1.175(a)(7) and 1.63(b)(3), we hereby acknowledge our duty to disclose information of which we are aware, which is material to patentability as defined in 37 C.F.R. § 1.56.

Priority is claimed under 35 U.S.C. § 119 from December 16, 1993 and December 15, 1994 based on Korean Patent Application Nos. 93-28074 and 94-34497, respectively.

In compliance with 37 C.F.R. §§ 1.175(a), we hereby declare and state that the above-identified U.S. Patent No. 5,793,897 is believed to be at least partly inoperative for the reason that we had claimed less than we had the right to claim in the patent.

REISSUE DECLARATION UNDER 37 C.F.R. § 1.175  
REISSUE APPLICATION OF U.S. PATENT NO. 5,793,897

The purpose of seeking a reissue patent is to correct the insufficiency in the patented claims by presenting new claims that are commensurate with the true scope of our invention.

Pursuant to 37 C.F.R. § 1.175(a)(1), we state as follows at least one error in the patent, which is relied on as a basis for this reissue. Claim 1 of the '897 patent recites a step of "setting a plurality of variable-length coding tables having different patterns of a regular region and an escape region according to statistical characteristics of said run, level data." However, we believe that the language "having different patterns of a regular region and an escape region according to statistical characteristics of said run, level data" excessively limits the type of variable-length coding tables that can be set to perform the objects of the invention. Furthermore, claim 1 recites "wherein said selecting step has the selecting range of a plurality of variable-length coding tables having different patterns of a regular region and an escape region according to said intra/inter mode information of the currently processed block." However, we believe that the language "having different patterns of a regular region and an escape region according to said intra/inter mode information of the currently processed block" is excessively limiting. As such, we believe that new claims should be added that do not limit the types of variable-length coding tables that can be employed by this adaptive variable-length coding method.

The new independent claim 8 added in this reissue application does not include a recitation requiring the variable-length coding tables to be set "having different patterns of a regular region and an escape region according to statistical characteristics of said run, level data." Moreover, the new independent claim 8 does not include a recitation requiring the variable-length coding tables in the selecting range to have "different patterns of a regular region and an escape region according to said intra/inter mode information of the currently processed block." Accordingly, new independent claim 8 corrects an error in claiming less than we had a right to claim.

Pursuant to 37 C.F.R. § 1.175(a)(2), we state that all errors being corrected in the reissue application up to the time of filing this declaration arose without any deceptive intention.

We hereby appoint John H. Mion, Reg. No. 18,879; Thomas J. Macpeak, Reg. No. 19,292; Robert J. Seas, Jr., Reg. No. 21,092; Darryl Mexic, Reg. No. 23,063; Robert V. Sloan, Reg. No. 22,775; Peter D. Olexy, Reg. No. 24,513; J. Frank Osha, Reg. No. 24,625;

REISSUE DECLARATION UNDER 37 C.F.R. § 1.175  
REISSUE APPLICATION OF U.S. PATENT NO. 5,793,897

Waddell A. Biggart, Reg. No. 24,861; Louis Gubinsky, Reg. No. 24,835; Neil B. Siegel, Reg. No. 25,200; David J. Cushing, Reg. No. 28,703; John R. Inge, Reg. No. 26,916; Joseph J. Ruch, Jr., Reg. No. 26,577; Sheldon I. Landsman, Reg. No. 25,430; Richard C. Turner, Reg. No. 29,710; Howard L. Bernstein, Reg. No. 25,665; Alan J. Kasper, Reg. No. 25,426; Kenneth J. Burchfiel, Reg. No. 31,333; Gordon Kit, Reg. No. 30,764; Susan J. Mack, Reg. No. 30,951; Frank L. Bernstein, Reg. No. 31,484; Mark Boland, Reg. No. 32,197; William H. Mandir, Reg. No. 32,156; Brian W. Hannon, Reg. No. 32,778; Abraham J. Rosner, Reg. No. 33,276; Bruce E. Kramer, Reg. No. 33,725; Paul F. Neils, Reg. No. 33,102; Brett S. Sylvester, Reg. No. 32,765; Robert M. Masters, Reg. No. 35,603, George F. Lehnigk, Reg. No. 36,359, John T. Callahan, Reg. No. 32,607 and Steven M. Gruskin, Reg. No. 36,818, our attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and request that all correspondence about the application be addressed to **SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC**, 2100 Pennsylvania Avenue, N.W., Washington, D.C. 20037-3213.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

Date: 8/24/2000

First Inventor:

<u>JAE</u>	<u>MOON</u>	<u>JO</u>
First Name	Middle Initial	Last Name

Residence: SUWON CITY, KOREA

Signature: [Signature]

Post Office Address: SAMSUNG ELECTRONIC CO. 416, MAETAN-DONG  
PALDAL-KU, SUWON CITY, KOREA

Citizenship: KOREAN

REISSUE DECLARATION UNDER 37 C.F.R. § 1.175  
REISSUE APPLICATION OF U.S. PATENT NO. 5,793,897

Date: 9/20/2000

Second Inventor:

Jechang Jeong  
First Name Middle Initial Last Name

Residence: SEOUL, KOREA

Signature: Jechang Jeong

Post Office Address: Department of Electronic Communication Engineering,  
Hanyang University, 17 Hangdang Sungdong, Seoul, KORE

Citizenship: KOREAN



Q60197  
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of

**Jae-moon JO and Je-Chang JEONG**

Reissue Application of U.S. Patent  
No. 5,793,897 issued on August 11, 1998

Filed: Herewith

For: **APAPTIVE VARIABLE-LENGTH CODING AND DECODING METHODS FOR  
IMAGE DATA**

**ASSENT OF ASSIGNEE TO REISSUE**

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

Samsung Electronics Co., Ltd., the Assignee of the entire right, title and interest of the invention described and claimed in the above-identified U.S. Patent No. 5,793,897, hereby assents to the filing of the reissue application of said patent in accordance with the Reissue Declaration and accompanying papers submitted herewith. I aver that I am empowered to assent to the filing of the reissue application of said patent on behalf of Samsung Electronics Co., Ltd.

SAMSUNG ELECTRONICS CO., LTD.

Date: 2000, 8.23

*Jay Kuen Pyo*  
(Signature)

Hang Kuen Pyo  
(Type Name)

Title: Senior Manager



Q60197  
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of

**Jae-moon JO and Je-Chang JEONG**

Reissue Application of U.S. Patent  
No. 5,793,897 issued on August 11, 1998

Filed: Herewith

For: **APAPTIVE VARIABLE-LENGTH CODING AND DECODING METHODS FOR  
IMAGE DATA**

**OFFER TO SURRENDER LETTERS PATENT UNDER 37 C.F.R. § 1.178**

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

Samsung Electronics Co., Ltd., is the Assignee of the entire right, title and interest of the invention described and claimed in the above-identified U.S. Patent No. 5,793,897. Samsung Electronics Co., Ltd., hereby offers to surrender U.S. Patent No. 5,793,897 to the U.S. Patent and Trademark Office (PTO).

A certificate under 37 C.F.R. § 3.73(b) is attached.

I am authorized to act on behalf of Samsung Electronics Co., Ltd.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.

SAMSUNG ELECTRONICS CO., LTD.

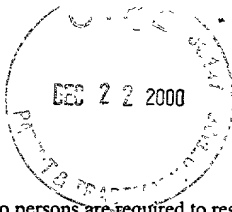
Date: 2000, 8, 23.

Hong Kuen Pyo  
(Signature)

Hong Kuen Pyo  
(Type Name)

Title: Senior Manager





Q60197

PTO/SB/96

Approved for use through 8/30/98. OMB 0651-0027

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1985, no persons are required to respond to a collection of information unless it displays a valid OMB control number

**CERTIFICATE UNDER 37 C.F.R 3.73(b)**Applicant: Jae-moon JO and Je-Chang JEONGApplication No. U.S. Patent No. 5,793,897Filed: Issued August 11, 1998Entitled: APAPTIVE VARIABLE-LENGTH CODING AND DECODING METHODS FOR IMAGE DATASAMSUNG ELECTRONICS CO., LTD.

(Name of Assignee)

, a

Corporation

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc)

certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of either:

A. ☒ An assignment from the inventors of the patent application identified above. A copy which a copy thereof is attached.From Jae-moon JO and Je-Chang JEONG To: Samsung Electronics Co., Ltd.

OR

B. ☐ A chain of title from the inventor(s), of the patent application identified above, to the current assignee as show below:

1. From \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the Patent and Trademark Office at

Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the Patent and Trademark Office at

Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

3. From \_\_\_\_\_ To: \_\_\_\_\_

The document was recorded in the Patent and Trademark Office at

Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.☐ Copies of assignments or other documents in the chain of title are attached.

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, tot he best of undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned (whose title is supplied below) is empowered to sign this certificate on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable b fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

2000.8.23.

Date

Hong Kuen pyo

Signature

Hong Kuen pyo

Type or Printed Name

Senior Manager

Title

Burden Hour Statement: This form is estimated to take 0.5 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETE FORMS TO THIS ADDRESS. SEND TO Assistant Commissioner for Patents, Washington, DC 20231.

# ASSIGNMENT

Whereas, I/We, Jae-moon JO and Je-Chang JEONG of 835-704, Hyundai Apt., Jangmi Maeul Yatap-dong, Bundang-gu, Seongnam-city Kyungki-do, 463-070 Republic of Korea and 108-1007, Wooseong Apt., Yangjae-dong Seocho-gu, Seoul 137-130 Republic of Korea

hereinafter called assignor(s), have invented certain improvements in

## ADAPTIVE VARIABLE-LENGTH CODING AND DECODING METHODS FOR IMAGE DATA

and executed an application for Letters Patent of the United States of America therefor on

September 30, 1995; and

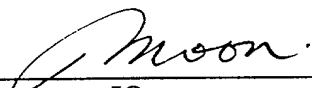
Whereas, SAMSUNG ELECTRONICS CO., LTD. of 416, Maetan-dong, Paldal-gu, Suwon-city, Kyungki-do, Republic of Korea (assignee), desires to acquire the entire right, title and interest in the said application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

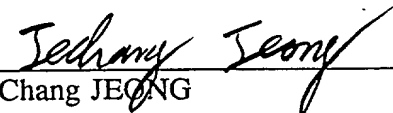
I/We the above-named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including the right to claim priority under 35 U.S.C. § 119, and I/we request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

I/We hereby authorize and request my attorneys SUGHRUE, MION, ZINN, MACPEAK & SEAS of 2100 Pennsylvania Avenue, N.W., Washington, D.C. 20037-3202 to insert here in parentheses (Application number 08/495,591, filed August 2, 1995) the filing date and application number of said application when known.

Date: September 30, 1995

s/   
Jae-moon JO

Date: Sept. 30, 1995

s/   
Je-Chang JEONG

(Legalization not required but is prima facie evidence of execution under 35 U.S.C. §261)